

*National Synchrotron Light Source  
Brookhaven National Laboratory  
Training Plan*

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## **1.0 Purpose and Scope**

The policy of the NSLS with regard to the training of its personnel is to:

Assure the training of all NSLS personnel including: employees, contract employees, users, visitors, and all others who are employed by or sponsored by the NSLS to perform work or provide a service. The NSLS Facility includes the NSLS (building 725), the ATF (Building 820), the SDL (building 729) and Training shall be provided, to the level appropriate, to ensure the highest level of personnel performance, the health and safety of individuals, and to protect the environment.

- a. General Training required for all personnel regardless of assignment.
- b. Facility/Location Training, in order of priority, required for assigned personnel and for those requiring access or special instructions in order to perform work in the facility/location.
- c. Job Training (in order of priority) required for each position or functional job assignment. Job Training requirements and critical job skills shall be determined by completing a Job Training Assessment. Job Training requirements for systems will be accomplished by identifying the required critical job skills and potential hazards. Critical job skills shall require trainee evaluation to assure that the required level of competence has been attained.

## **2.0 Responsibilities**

### **2.1 NSLS Department Chairman**

The Department Chairman shall have overall responsibility for implementation of the Training Plan, and will appoint a Training Coordinator.

### **2.2 NSLS Section Heads**

Each NSLS Section Head is responsible to the Department Chairman for ensuring that personnel working within their Section are trained and qualified in accordance with individual training specifications. In order to carry out this responsibility, each Section Head shall:

- a. Ensure that training specifications are prepared for each employee they direct, based on a job description, job training assessment, and location/facility assessment.
- b. Ensure the requirements of the NSLS Training Plan are implemented in their respective Section.
- c. Evaluate their Supervisors' and employees' performance relating to the completion of training requirements.

- d. Encourage employees to pursue training beyond current job requirements for advanced abilities.

### 2.3 NSLS Supervisors

Each NSLS Supervisor is responsible to the appropriate Section Head for ensuring that personnel working within their group are trained and qualified to perform assigned tasks in accordance with individual training assessments. In order to carry out this responsibility, each Supervisor shall:

- a. Prepare and maintain training assessments for each employee they direct, based on job function and location/facility training needs.
- b. Monitor employee progress in completing requirements described in the training assessments and ensure their personnel attend required training. Suspend qualifications for individuals who are unable to re-qualify successfully until successful performance is demonstrated.
- c. Evaluate employee proficiency for critical job tasks. In case of failure to demonstrate competence on critical skills, provide remedial training until the individual successfully demonstrates the required knowledge or skills as required for that training program. Mentor employees who have not yet mastered competencies.
- d. Review status of training and qualification requirements prior to making work assignments to ensure that all personnel within their area of responsibility have fulfilled the training and qualification requirements needed to perform assigned activities. Ensure that employees do not perform tasks with lapsed qualifications that are regulatory driven, or required for specific task performance.
- f. Provide and/or oversee on-the-job training (OJT)
- g. Document OJT and Department-delivered training courses presented to group members by:
  - i) Keeping signed rosters or OJT checklists of the training that was provided.
  - ii) Providing either the original or a copy of the signed roster/OJT checklist to the Training Coordinator.
  - iii) Maintaining the Qualified Worker Matrix for each technician performing a task at the NSLS. Matrix is located in the Internal Work Planning Manual for each group.
  - iv) Ensuring that training materials are provided to the NSLS Training Coordinator.
- i. Evaluate the effectiveness of training programs.
- j. Notify NSLS Training Coordinator of new training needs, changes in personnel assignments, changes in job function, and new positions/tasks which need to be assessed for training and qualification requirements.

Supervisors are defined as follows with regard to training responsibilities:

- a. Long-term Users, Short-Term Users, and Visitors shall be considered to be under the supervision of the User Administration Office/Control Room for the purposes of acquiring the training necessary for access to the facility.
- b. Any individual desiring to use a beamline shall be considered to be under the supervision of the Beamline Spokesperson/Designee for the purposes of acquiring the necessary training to work on the beamline. The Beamline Spokesperson will be responsible for maintaining current training requirements for their beamline.
- c. All Employees and NSLS Collaborators, Students, and Post-Docs as well as Long-Term Users when working in areas other than on a beamline, shall have their training requirements overseen by their normal chain of supervision in concert with the NSLS Training Coordinator.

## 2.5 Training Coordinator

The Training Coordinator is responsible to the NSLS Chairman for the on-going support of the NSLS training program. Specifically the Training Coordinator shall:

- a. Serve as the focal point for developing and implementing the NSLS Training Plan.
- b. Assist in defining and prioritizing objectives for NSLS training initiatives and coordinate their accomplishment.
- c. Advise NSLS Management of Department training needs and progress in meeting training goals.
- d. Serve as liaison between the NSLS Department and the BNL Training Office. Represent the NSLS in matters pertaining to internal training and provide Departmental participation into: the formulation and revision of BNL site training policies; identification of training needs and priorities; and the evaluation of training activities.
- e. Keep other Departments/Divisions and the User Administration Office/Control Room informed of the training requirements for access to and work at the NSLS.
- f. Assist in the assessment and documentation of training and qualification requirements for personnel based on hazards encountered, work performed, location access needs, and site requirements.
- g. Consult with the NSLS ES&H Coordinator, NSLS supervisors, and others in the safety and environmental organizations to achieve a coordinated effort in ensuring appropriate training.
- h. Assist in the communication of lapsed training qualifications for incumbents to appropriate supervisors in the effort to ensure that personnel do not perform tasks for which they are not qualified.

- i. Provide assistance in the administration, documentation, and record-keeping of Department-delivered training courses where appropriate in accordance with Training and Qualification Program Requirements.
  - i) Document the content of Department-delivered training programs, including classroom and OJT, using the standard Training Course Description form or equivalent.
  - ii) Document instructor qualifications for Department-delivered training programs. The names of qualified instructors for each course will be listed on the Training Course Description form and a record of the qualifications of those individuals will be maintained.
  - iii) Ensure that attendance records for internally-delivered required training courses are incorporated into the Brookhaven Training Management System (BTMS) and retain original hard copies of signed training rosters, on-the-job training checklists/ performance measures, indoctrination records, and/or examinations. Retention periods for hard copies of records is a minimum of four years (unless course records relate to the handling of hazardous, toxic, radioactive materials, radiation safety or other area that relates to chronic exposure in which case the retention period is 75 years).

2.6 General Employees - All NSLS personnel shall:

- a. Complete required training as directed by their supervisors, including renewing any expiring training.
- b. Sign the training roster or on the job training (OJT) checklist, indicating that they have acquired the knowledge and skills needed to meet performance expectations.
- c. Maintain the level of knowledge required to conduct assigned duties effectively and in a safe and environmentally conscious manner.
- d. Provide feedback on training adequacy/quality to course instructors, supervisors and the Training Coordinator.
- e. Refrain from performing tasks that they are not trained and qualified to perform.
- f. Notify Training Coordinator/Supervisor of any job-related training courses/certifications completed outside of the Laboratory.
- g. Identify new training and qualification needs for assigned work to your Supervisor and Training Coordinator.

## 3.0 Training Requirements

3.1 General Training Requirements

Minimum Training and Qualification requirements will be determined in accordance with the criteria defined in the Procedure for Determining Training and Qualification Requirements. Training requirements are determined by the nature of the person's work at the NSLS.

3.2 Employees and Long-Term Users or NSLS Collaborators assigned to work at the NSLS for more than 60 days:

- a. General Employee Training (GET), which includes Stop Work Procedure Training for both Imminent Danger and Radiological Activities; provided by the SHS Division.
- b. Emergency Planning and Response Training
- c. Environmental Protection for General Employees Training
- d. Appropriate Radiological Training (either GERT or Radiological Worker 1) provided by the SHS Division.
- e. Job Specific Training, as identified by the NSLS Training Coordinator, the individual's supervisor, and/or Beamline Spokesperson/Designee.
  - i) For anyone performing experiments on a beamline or at the ATF, job-specific training will include Beamline Operations and Safety Awareness (BLOSA) for that beamline provided by the Beamline Spokesperson or designee.
  - ii) For anyone whose work involves a Significant Environmental Aspect as defined in the NSLS Environmental Management System, job-specific environmental awareness training will be included.
  - iii) For anyone whose work exposes them to hazards not already covered in the NSLS Facility-Specific Safety Orientation, additional training addressing those hazards will be assigned.
  - iv) For any technicians performing tasks requiring Work Planning, tasks will be assigned and specific training administered according to the Qualified Worker Matrix located in the Internal Work Planning Manual for each group.

3.3 Short-Term Users working at the NSLS for less than 60 days:

- a. NSLS Facility-Specific Safety Orientation provided by the User Administration Office or NSLS Control Room.
- b. General Employee Radiological Training (GERT) or NSLS Facility Radiological Access Training provided by the User Administration Office or NSLS Control Room, or the SHS Division.
- c. Job Specific Training, as identified by the NSLS Training Coordinator, the individual's supervisor, and/or Beamline Spokesperson/Designee.
  - i) For anyone performing experiments on a beamline, job-specific training will include Beamline Operations and Safety Awareness (BLOSA) provided by the Beamline Spokesperson or designee.

- ii) For anyone whose work involves a Significant Environmental Aspect as defined in the NSLS Environmental Management System, job-specific environmental awareness training will be included.
- iii) For anyone whose work exposes them to hazards not already covered in the NSLS Facility-Specific Safety Orientation, additional training addressing those hazards will be assigned.

3.4 General Training for Casual Visitors touring the facility, attending a meeting, or observing an experiment must either

- a. Receive training as for Short-Term Users, if they will be actively involved in performing an experiment or if they will be visiting any Radiologically Controlled Areas for more than eight hours.
- b. Be escorted in Controlled Areas by trained personnel if they will NOT be working on a beamline (e.g. touring the facility or strictly observing an experiment) and will be in any Radiologically Controlled Area for less than eight hours.

3.5 Contractors required training shall include:

- a. Contractor/Vendor Orientation (CVO) or General Employee Training (GET) through the SHS Division before coming to work at the NSLS. Short-term consultants may be escorted or receive as a minimum a Departmental ESH briefing.
- b. NSLS Facility-Specific Safety Orientation will be evaluated and provided as required by the NSLS Training Coordinator.
- c. General Employee Radiological Training (GERT) or higher level if applicable will be provided by the NSLS Training Coordinator or SHS Division.
- d. If needed, the User Administration Office will issue a radiation badge upon receiving proof of training. The badge will be for short-term temporary service only; permanent TLD badge status must be obtained through the contractor's specific Radiological Control Division Representative.

## **4.0 Assurance of Required Training**

The assurance of required training for each person within the NSLS shall be based on a monitoring system under the direction of the Training Coordinator. The Training and Qualifications Program Office notifies incumbents of training due to expire. In addition, incumbents and Training Coordinators are notified of lapsed qualifications. Incumbents schedule and complete needed training or request exemptions or extensions where applicable.

Reports listing outstanding training requirements are reviewed by the Training Coordinator and are used to track the completion of outstanding training. Percentage of completion of required

training is tracked and reported each month.

To ensure that work is not performed by individuals with lapsed training qualifications, the Training Coordinator notifies both the individual and their supervisor of any lapsed qualifications.

## **5.0 Goals and Objectives**

### **5.1 Job Training Assessments/Required Training Links for Personnel**

Required training needs will be identified and documented for all department personnel. Required training needs and employee links to required training will be reviewed when jobs or requirements change, new jobs are created, or at minimum yearly

### **5.2 Location/Facility Assessments**

Identify any Location/Facility that requires training for access/work and complete Location/Facility Assessments for these areas.

### **5.3 Planned Departmental Initiatives**

- a. Develop a qualification program to verify competency of personnel.
- b. Develop and implement a process for ensuring Work Planning and Experimental Review Processes feed Training Assessments to ensure that minimum requirements are documented and tracked for personnel.
- c. Improve Beamline Operations and Safety Awareness (BLOSA) training compliance for beamline users.
- d. Update the NSLS Facility-Specific Safety Orientation.
- e. When Guest/Contractor/Visitor Database is Implemented, document a Process for Ensuring Guests receive and are linked to appropriate training requirements.
- f. For Internally administered required courses, ensure course documentation requirements and instructor requirements are met in conjunction with Training and Qualification Program Office.
- g. Determine Need for Additional Job-specific Training Qualification Requirements in accordance with new training requirements.
  - i) Identify a priority for positions to be assessed for additional training and qualification needs based on their potential consequences that would result from improper task performance.
  - ii) Document job-specific needs identified for these positions.
  - iii) Based on additional training and qualification needs identified and documented for positions that are determined to not being appropriately addressed, work with the Training and Qualification Program Office to implement formalized procedure/OJT training programs where applicable.